

100-200000

WHAT IS CLAIMED IS:

1. An isolated polynucleotide comprising:
  - a) a nucleotide sequence encoding a polypeptide comprising the amino acid sequence of SEQ ID NO:2;
  - b) a nucleotide sequence encoding a polypeptide comprising amino acid residues 72-93, 147-162, 191-211 OR 217-238 of SEQ ID NO:2;
  - c) a nucleotide sequence encoding a polypeptide comprising the amino acid sequence of SEQ ID NO:4;
  - d) a nucleotide sequence encoding a polypeptide comprising amino acid residues 55-76, 132-150, 177-199 or 213-234 of SEQ ID NO:4;
  - e) a nucleotide sequence encoding a polypeptide comprising the amino acid sequence of SEQ ID NO:6;
  - f) a nucleotide sequence encoding a polypeptide comprising amino acid residues 47-68, 123-138, 167-187 or 193-214 of SEQ ID NO:6;
  - g) a nucleotide sequence encoding a polypeptide comprising the amino acid sequence of SEQ ID NO:8;
  - h) a nucleotide sequence encoding a polypeptide comprising amino acid residues 46-67, 122-140, 166-187 or 194-213 of SEQ ID NO:8;
  - i) a nucleotide sequence encoding a polypeptide comprising the amino acid sequence of SEQ ID NO:9;
  - j) a nucleotide sequence encoding a polypeptide comprising amino acid residues 77-98, 153-167, 197-217 or 223-242 of SEQ ID NO:9;
  - k) nucleotides 232-1599, 445-513, 670-717, 802-864 or 880-945 of the nucleotide sequence of SEQ ID NO:1;

- 1) nucleotides 83-1669, 245-310, 476-532, 611-679 or 719-784 of the nucleotide sequence of SEQ ID NO:3;
  - 5 m) nucleotides 247-1530, 385-450, 613-660, 745-807 or 823-888 of the nucleotide sequence of SEQ ID NO:5; or
  - n) nucleotides 205-1599, 340-395, 568-624, 700-765 or 784-843 of the nucleotide sequence of SEQ ID NO:7.
- 10 2. An isolated polynucleotide which hybridizes to the complement of the polynucleotide of Claim 1 under stringent hybridization conditions.
3. An isolated polynucleotide which comprises the complement of the polynucleotide of Claim 1.
- 15 4. A vector comprising the isolated polynucleotide of Claim 1 or 2.
5. An expression vector comprising the isolated polynucleotide of Claim 1 or 2.
- 20 6. A host cell genetically engineered to contain the polynucleotide of Claim 1 or 2.
7. A host cell genetically engineered to contain the polynucleotide of Claim 1 or 2 in operative association with
- 25 a regulatory sequence that controls expression of the polynucleotide in the host cell.
8. An isolated polypeptide comprising:
- a) the amino acid sequence of SEQ ID NO:2;
  - b) amino acid residues 72-93, 147-162, 191-211 OR
  - 30 217-238 of SEQ ID NO:2;
  - c) the amino acid sequence of SEQ ID NO:4;
  - d) amino acid residues 55-76, 132-150, 177-199 or 213-234 of SEQ ID NO:4;

- e) the amino acid sequence of SEQ ID NO:6;
- f) amino acid residues 47-68, 123-138, 167-187 or 193-214 of SEQ ID NO:6;
- g) the amino acid sequence of SEQ ID NO:8;
- h) amino acid residues 46-67, 122-140, 166-187 or 194-213 of SEQ ID NO:8;
- i) the amino acid sequence of SEQ ID NO:9; or
- j) amino acid residues 77-98, 153-167, 197-217 or 223-242 of SEQ ID NO:9;

5           9. A composition comprising the polypeptide of Claim 8 and a carrier.

          10. An antibody directed against the polypeptide of Claim 8.

15          11. A method for detecting a polynucleotide of Claim 1 or 2 in a sample, comprising:

- a) contacting the sample with a compound that binds to and forms a complex with the polynucleotide for a period sufficient to form the complex; and
  - 20          b) detecting the complex,
- so that if a complex is detected, a polynucleotide of Claim 1 or 2 is detected.

          12. A method for detecting a polynucleotide of Claim 1 or 2 in a sample, comprising:

- 25          a) contacting the sample under stringent hybridization conditions with nucleic acid primers that anneal to a polynucleotide of Claim 1 or 2 under such conditions; and
  - b) amplifying the annealed polynucleotides,
- so that if a polynucleotide is amplified, a polynucleotide of
- 30 Claim 1 or 2 is detected.

          13. The method of Claim 12, wherein the polynucleotide is an RNA molecule that encodes a polypeptide of Claim 8, and



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## APPL PARTS

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Internal Misc. Paper

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Misc. Incoming Letter

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PCT Papers in a 371 Application

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Amendment Including Elections

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Abstract

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Application Data Sheet

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Affidavit or Exhibit Received

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Appendix

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Artifact

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Bib Data Sheet

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Claim

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Computer Program Listing

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All CRF Papers for Backfile

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Terminal Disclaimer Filed

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Drawings

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Foreign Reference

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Foreign Priority Papers

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IDS Including 1449

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Non-Patent Literature

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Oath or Declaration

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Petition

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Mail Returned by USPS

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Sequence Listing

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Specification

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Specification Not in English

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Transmittal New Application

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Count Non-Final

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Count Restriction

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Examiner Interview

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DO/EO Acceptance

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DO/EO Missing Requirement

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Formal Drawing Required

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Notice of Allowance

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Petition Decision

## OUTGOING

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Misc. Office Action

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Signed 1449

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892

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Abandonment

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Board of Appeals Decision

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Examiner Answer

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Count Advisory Action

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Count Ex parte Quayle

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Count Final Rejection

## INCOMING

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Appeal Brief

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Change of Address

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Notice of Appeal

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Change in Power of Attorney

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Applicant Remarks in Amendment

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Extension of Time filed separate

### Internal

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Examiner Search Notes

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PTO Prepared Complete Claim Set

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Evidence Copy Box Identification

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Claim Worksheet

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Fee Worksheet

### File Wrapper

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File Wrapper Claim

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File Wrapper Issue Information

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File Wrapper Search Info

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